

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for operating a point-to-multipoint wireless communication network, said method comprising:

measuring link delays between a root bridge and a plurality of non-root bridges;

calculating a common time slot value based on said measured link delays, wherein said common time slot value is calculated based on a longest measured link delay;

distributing said measured link delays and said common time slot value to said non-root bridges within said point-to-multipoint wireless communication network; and

aligning contention timing boundaries based on said measured link delays and said common time slot values to coordinate transmissions and reduce the probability of collision in a carrier-sense multiple access with collision avoidance scheme;

wherein aligning contention timing boundaries comprises adjusting a network allocation vector.

Claim 2 (canceled).

Claim 3 (canceled).

Claim 4 (canceled).

Claim 5 (original): The method of claim 1 wherein measuring and using are performed by said root bridge.

Claim 6 (original): The method of claim 1 wherein measuring and using are performed by one of said non-root bridges.

Claim 7 (original): The method of claim 1 wherein using comprises:
assigning transmission deferral times to said non-root bridges based on said measured link delays to give access preference to more distant ones of said non-root bridges.

Claim 8 (currently amended): A method for operating a node in a point-to-multipoint wireless communication network, said method comprising:

receiving a measured link delay and a system slot time from another node, said system slot time calculated based on said measured link delay; and

using said measured link delay and said system slot time to coordinate transmissions and reduce the probability of collision in a Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA) scheme;

wherein coordinating transmissions comprises aligning contention timing boundaries ~~are aligned~~ based on said measured link delay and said common slot time, said contention timing boundaries comprising a network allocation vector.

Claim 9 (currently amended): A method for operating a point-to-multipoint wireless communication network, said method comprising:

measuring link delays between an access point and a plurality of stations; and

using said measured link delays to coordinate transmissions and reduce the probability of collision in a Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA) scheme, wherein using comprises calculating a common time slot value based on said measured link delays and distributing said measured link delays and said common time slot value within said point-to-multipoint wireless communication network; and

aligning contention timing boundaries based on said measured link delays and said common time slot values, wherein aligning contention boundaries comprises adjusting a network allocation vector.

Claim 10 (currently amended): Apparatus for operating a node in a point-to-multipoint wireless communication network, said apparatus comprising:

a link delay counter that measures delays between a root bridge and a plurality of non-root bridges; and

a MAC processor that calculates a common time slot value based on said measured link delay, distributes said measured link delays and said common time slot value within said point-to-multipoint wireless communication network, uses said measured link delays to coordinate transmissions and reduce the probability of collision in a CSMA/CA scheme, and aligns contention timing boundaries based on said measured link delays and said common time slot values, said containing timing boundaries comprising a network allocation vector.

Claim 11 (canceled).

Claim 12 (canceled).

Claim 13 (canceled).

Claim 14 (original): The apparatus of claim 10 wherein said node is said root bridge.

Claim 15 (original): The apparatus of claim 10 wherein said node is one of said non-root bridges.

Claim 16 (original): The apparatus of claim 10 wherein said MAC layer processor assigns transmission deferral times to said non-root bridges based on said measured link delays to give access preference to more distant ones of said non-root bridges.

Claim 17 (currently amended): Apparatus for operating a node in a point-to-multipoint wireless communication network, said apparatus comprising:

a physical layer block that receives a measured link delay and a system slot time from another node, said system slot time calculated based on said measured link delay; and

a MAC layer processor that uses said measured link delay and said system slot time to coordinate transmissions and reduce the probability of collision in a CSMA/CA scheme;

wherein contention timing boundaries are aligned based on said measured link delay and said common slot time, said contention timing boundaries comprising a network allocation vector.

Claim 18 (currently amended): Apparatus for operating a point-to-multipoint wireless communication network, said apparatus comprising:

a link delay counter that measures link delays between an access point and a plurality of stations; and

a MAC layer processor that calculates a common time slot value based on said measured link delay, distributes said measured link delays and said common time slot value within said point-to-multipoint wireless communication network, uses said measured link delays to coordinate transmissions and reduce the probability of collision in a CSMA/CA scheme, and aligns contention timing boundaries based on said measured link delays and said common time slot values, said contention timing boundaries comprising a network allocation vector.

Claim 19 (currently amended): Apparatus for operating a point-to-multipoint wireless communication network, said apparatus comprising:

means for measuring link delays between a root bridge and a plurality of non-root bridges;

means for using said measured link delays to coordinate transmissions and reduce the probability of collision in a CSMA/CA scheme, wherein means for using comprises means for calculating a common time slot value based on said measured link delays and distributing said measured link delays and said common time slot value within said point-to-multipoint wireless communication network; and

means for aligning contention timing boundaries based on said measured link delays and said common time slot values, said contention timing boundaries comprising a network allocation vector.

Claim 20 (currently amended): A computer-readable medium storing computer executable instructions for operating a point-to-multipoint wireless communication network, said instructions comprising:

code that causes measurement of said link delays between a root bridge and a plurality of non-root bridges;

code that causes use of said measured link delays to coordinate transmissions and reduce the probability of collision in a CSMA/CA scheme, wherein said measured link delays is used in calculating a common time slot value based on said measured link delays and distributed along with said common time slot value within said point-to-multipoint wireless communication network; and

code that causes alignment of contention timing boundaries based on said measured link delays and said common time slot values, said contention timing boundaries comprising a network allocation vector.

Claim 21 (previously presented): The method of claim 1 wherein coordinating transmissions comprises adjusting a network allocation vector time.

Claim 22 (previously presented): The method of claim 1 further comprising:
receiving a disassociation request message from one of said plurality of non-root bridges;
deleting the non-root bridge from a non-root bridge list;
updating said common time slot value; and
distributing said updated common time slot value to said plurality of non-root bridges.

Claim 23 (previously presented): The method of claim 1 further comprising:
receiving an association request message from a new non-root bridge that wants to join the point-to-multipoint wireless communication network; and
measuring link delays between said root bridge and said new non-root bridge.

Claim 24 (currently amended): The apparatus of claim 10 wherein said link delays are measured based on departure time ~~and arrival times~~ of Request to Send frames and arrival time of Clear to Send frames.

Claim 25 (canceled).

Claim 26 (previously presented): The apparatus of claim 18 wherein the MAC layer processor is configured to set a network allocation vector of each set of multiple access collision avoidance packets.

Claim 27 (new): The apparatus of claim 18 wherein said link delay counter tracks a time between transmitting a Request to Send (RTS) frame and receiving a Clear to Send (CTS) frame and calculates said link delay by subtracting a value for said RTS frame, said CTS frame and processing time.

Claim 28 (new): The method of claim 1 further comprising computing a network allocation vector timer value utilizing point coordination function interframe spacing at the root bridge, wherein said non-root bridges utilize distributed coordination function interframe spacing.